

CLAIMS

1. An arrangement for guiding the deadlocking of a latch bolt in a door lock comprising a lock case (1), which is provided with a latch bolt (3) urged by a spring (5) to a position protruding from the lock case, which latch bolt has a body part (3a) and at least one outwardly tapering wedge-shaped headpiece (3b) pivotably supported by the body part so that the latch bolt (3) may be pressed into the lock case (1) from either side thereof in the direction of door opening or closing due to a force acting upon said at least one wedge-shaped headpiece, an auxiliary bolt (8) urged by a spring (9) to a position protruding from the lock case, and a guide element (7), which is on one hand arranged to accomplish deadlocking of the latch bolt (3) and on the other hand to be in cooperation with the auxiliary bolt (8) so that the auxiliary bolt (8) is arranged to prevent the moving of the guide element (7) to its position providing the deadlocking of the latch bolt (3), while the latch bolt is in its protruding position, **characterised** in that it includes members which are arranged to allow the moving of the guide element (7) to a position providing the deadlocking of the latch bolt (3) only in case both the auxiliary bolt (8) and the latch bolt (3) are first moved to their retracted positions.

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2. An arrangement according to claim 1, **characterised** in that said members comprise a separate stop member (11) movably supported by the auxiliary bolt (8), which stop member is arranged to act upon the guide element (7), for instance a protrusion (7c) in it, so that it prevents the moving of the guide element (7) to a position providing the deadlocking of the latch bolt (3), while the auxiliary bolt (8) is in its protruding position, and in that said stop member (11) can be moved to a position, where it correspondingly allows the moving of the guide element (7) to its position providing the deadlocking of the latch bolt (3).

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3. An arrangement according to claim 2, **characterised** in that the stop member (11) is urged by a spring (12) to its position allowing the moving of the guide element (7).

5 4. An arrangement according to claim 2 or 3, **characterised** in that the auxiliary bolt (8) is provided with a guiding piece (10) attached to the lock case (1), which guiding piece defines the freedom of movement of the stop member (11) and is arranged to guide the movements of the auxiliary bolt (8).

10 5. An arrangement according to claim 4, **characterised** in that the stop member (11) comprises a guiding edge (11a), which is in cooperation with the guide element (7) and is turnable relative to said guiding piece (10).

15 6. An arrangement according to claim 5, **characterised** in that the guiding piece (10) comprises wedge-shaped guide surfaces (10a) for the stop member (11).

7. An arrangement according to anyone of claims 2 - 6, **characterised** in that said protrusion (7c) of the guide element is provided with a recess (7d),
20 where the stop member (11) is normally located so as to prevent said turning movement of the stop member (11), while the latch bolt (3) and the auxiliary bolt (8) are in their protruding positions.

8. An arrangement according to claim 7, **characterised** in that the latch bolt
25 (3) is provided with a guide surface (4a), which is arranged to move the guide element (7) so as to release the stop member (11) from the impact of said recess (7d), when the latch bolt (3) is pressed into the lock case (1).

9. An arrangement according to claim 8, **characterised** in that said guide surface (4a) is connected to a deadlocking member (4) of the latch bolt, which
30 member the guide element (7, 7a) is arranged to act upon in order to accomplish deadlocking of the latch bolt.

10. An arrangement according to anyone of the preceding claims when applied to a lock case, which is also provided with a dead bolt (13), characterised in that said guide element (7) is arranged to guide also the movements
5 of the dead bolt (13).

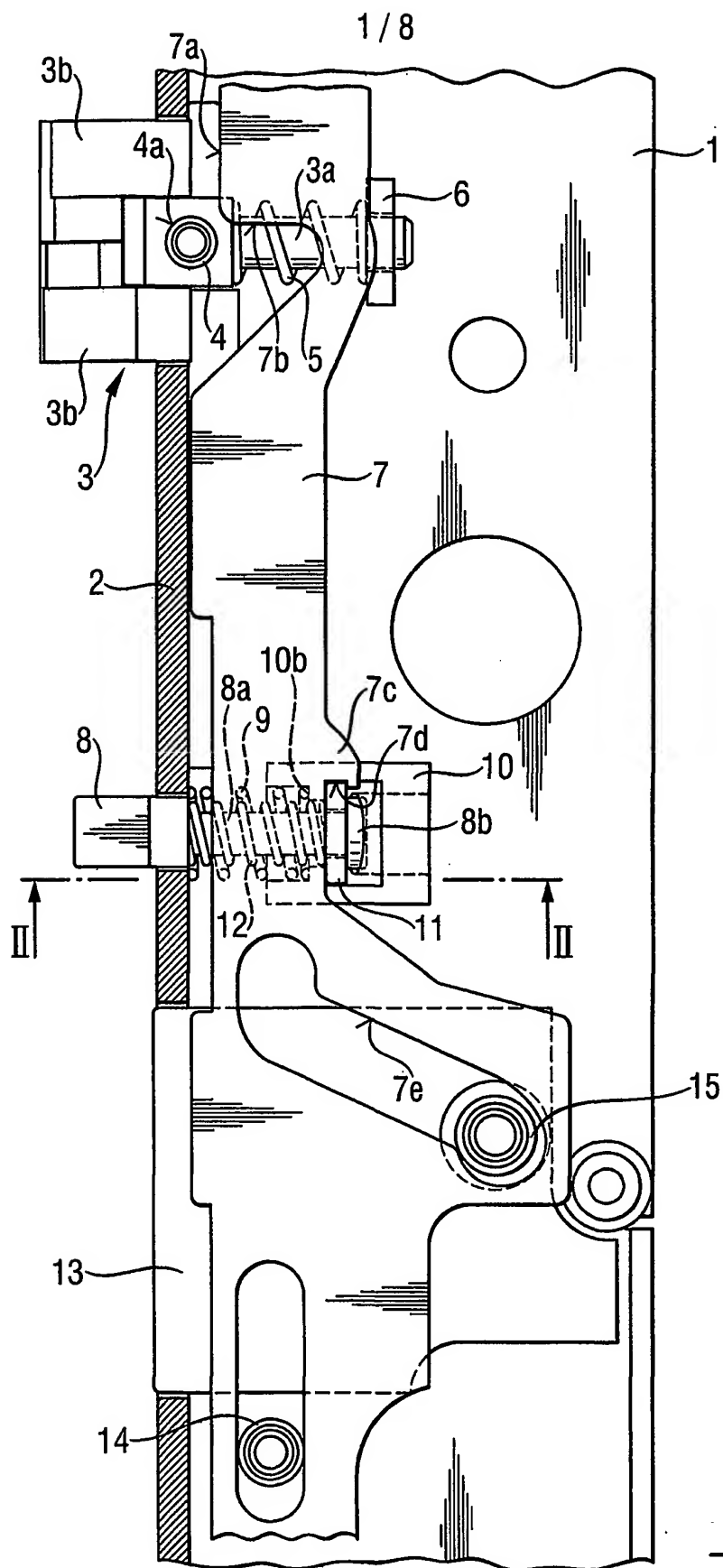
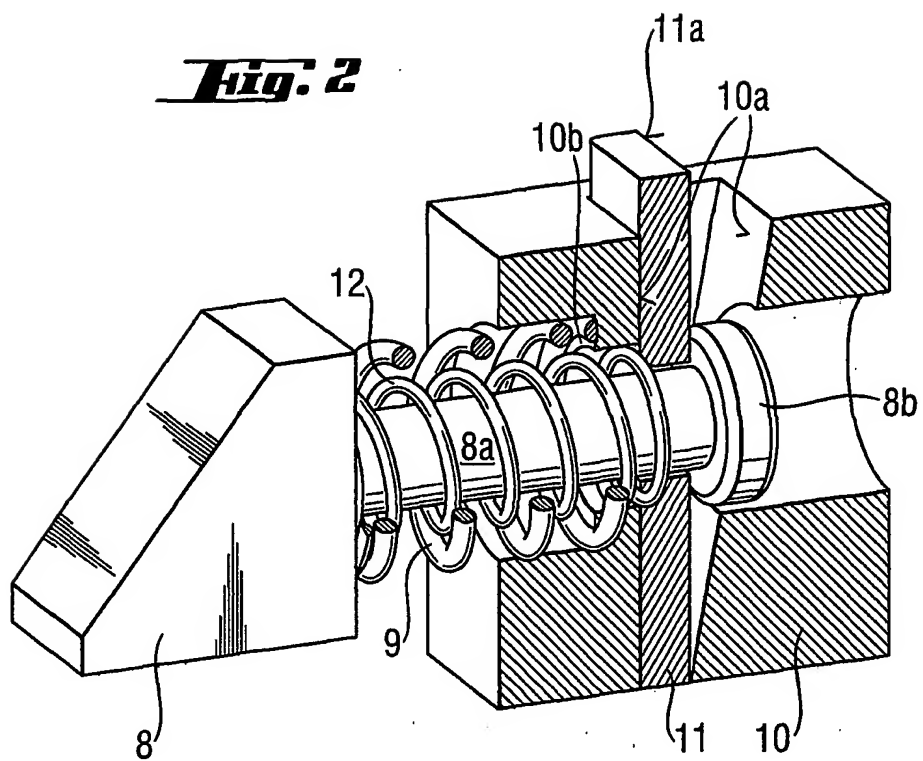


Fig. 1

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Fig. 2

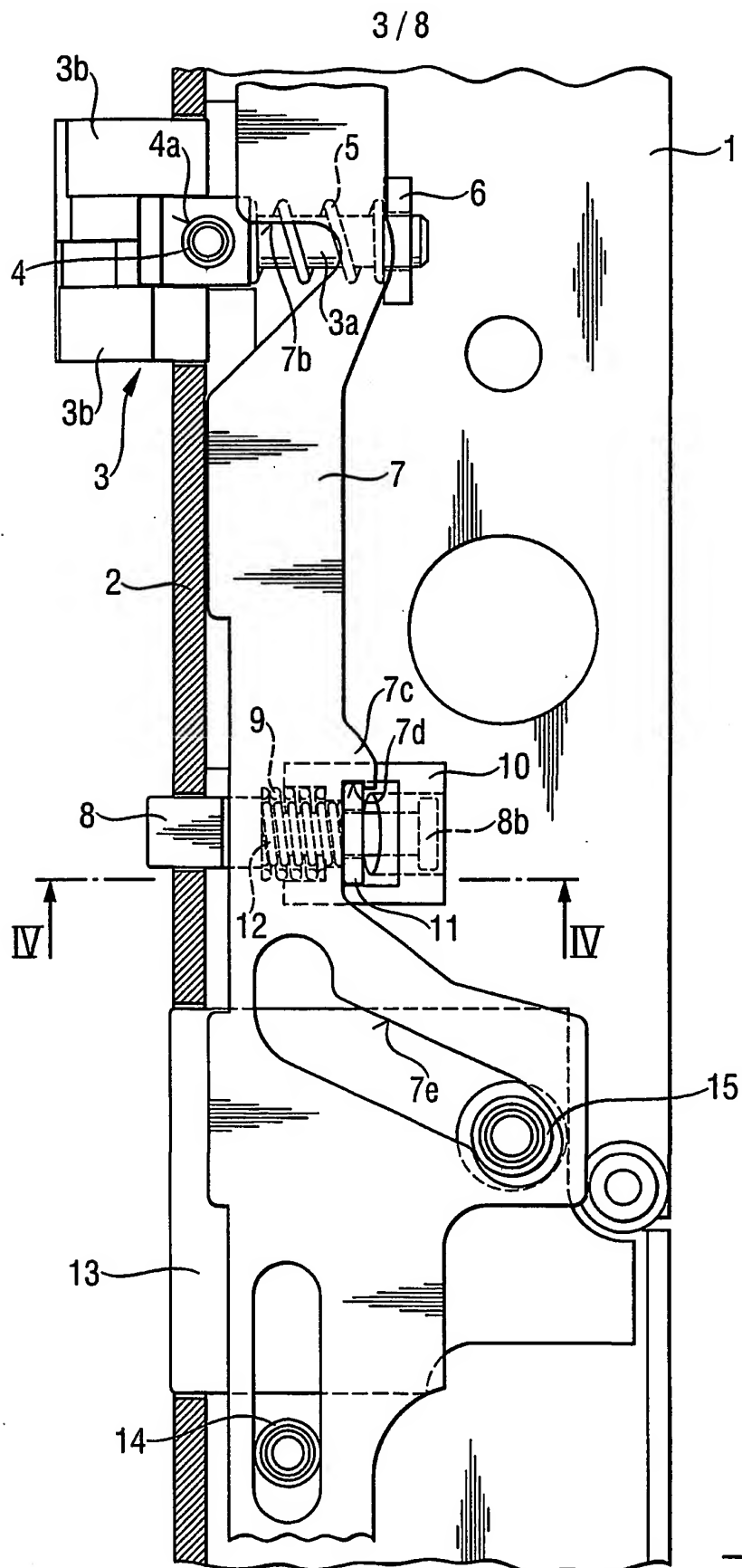
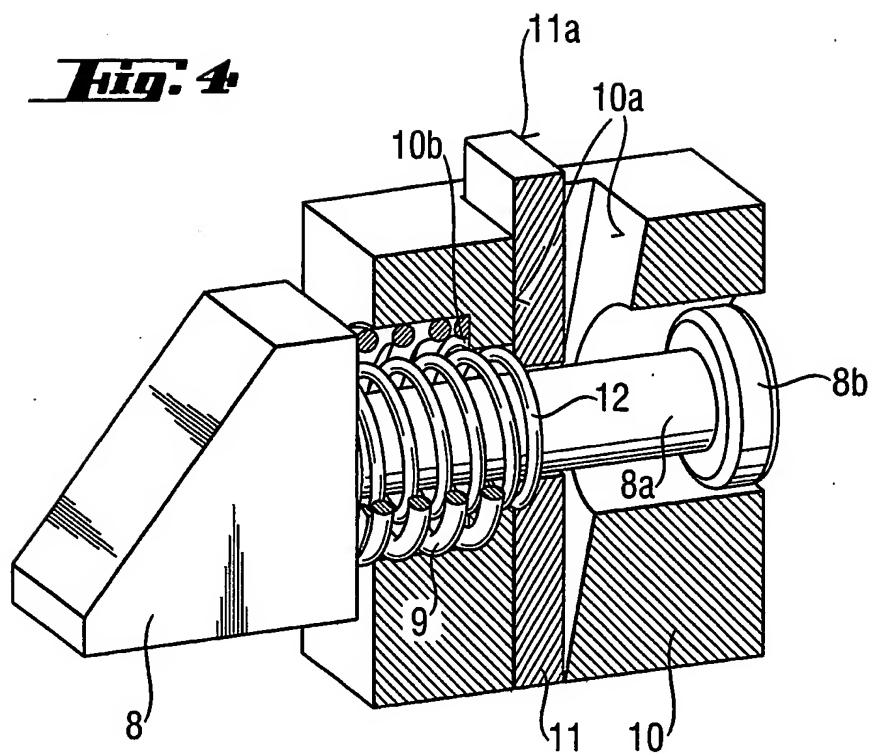
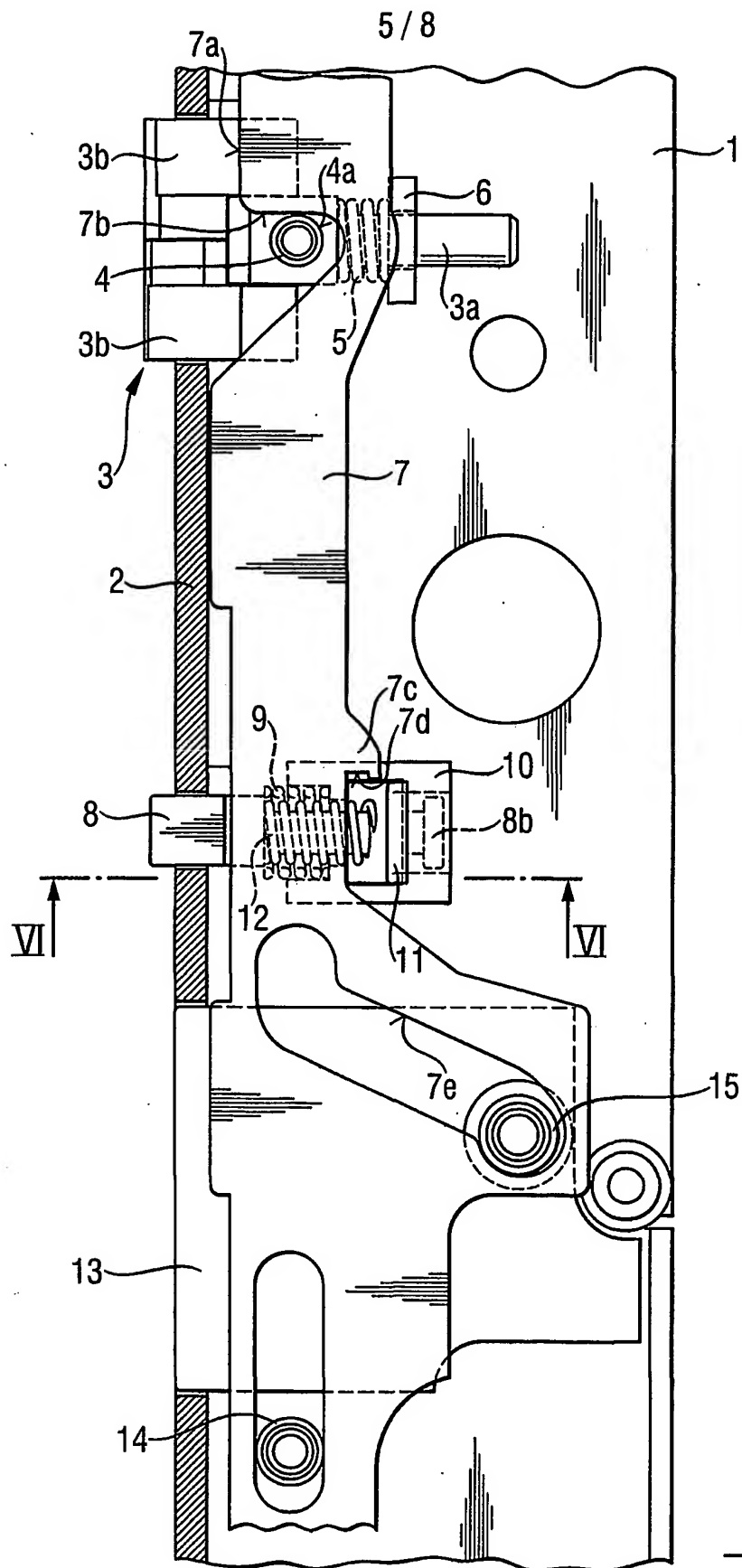


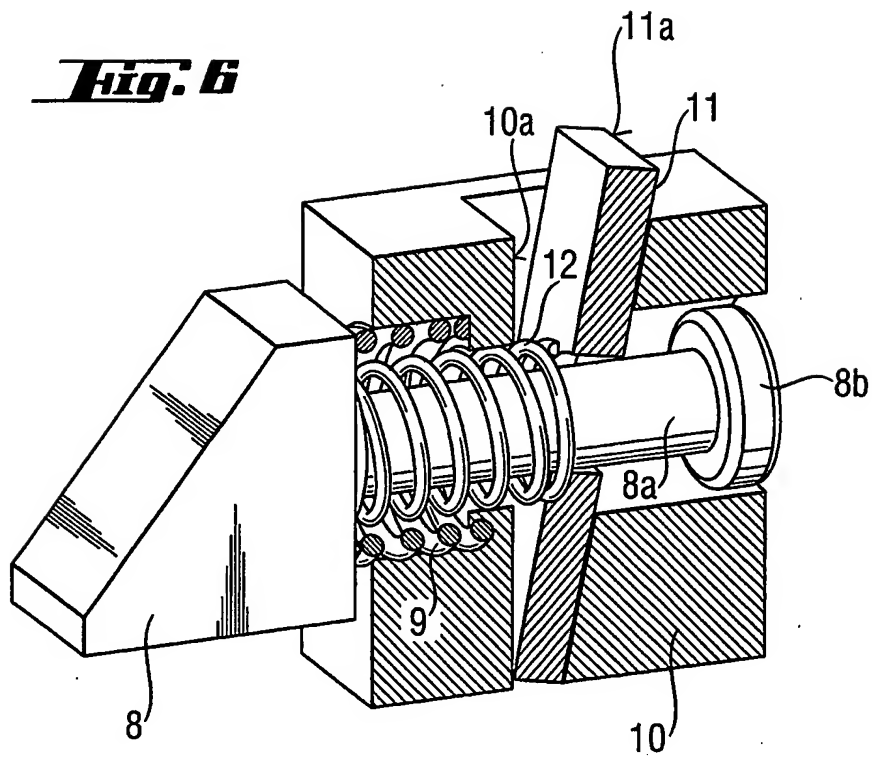
Fig. 3

Fig. 4

**Fig. 5**

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Fig. 6



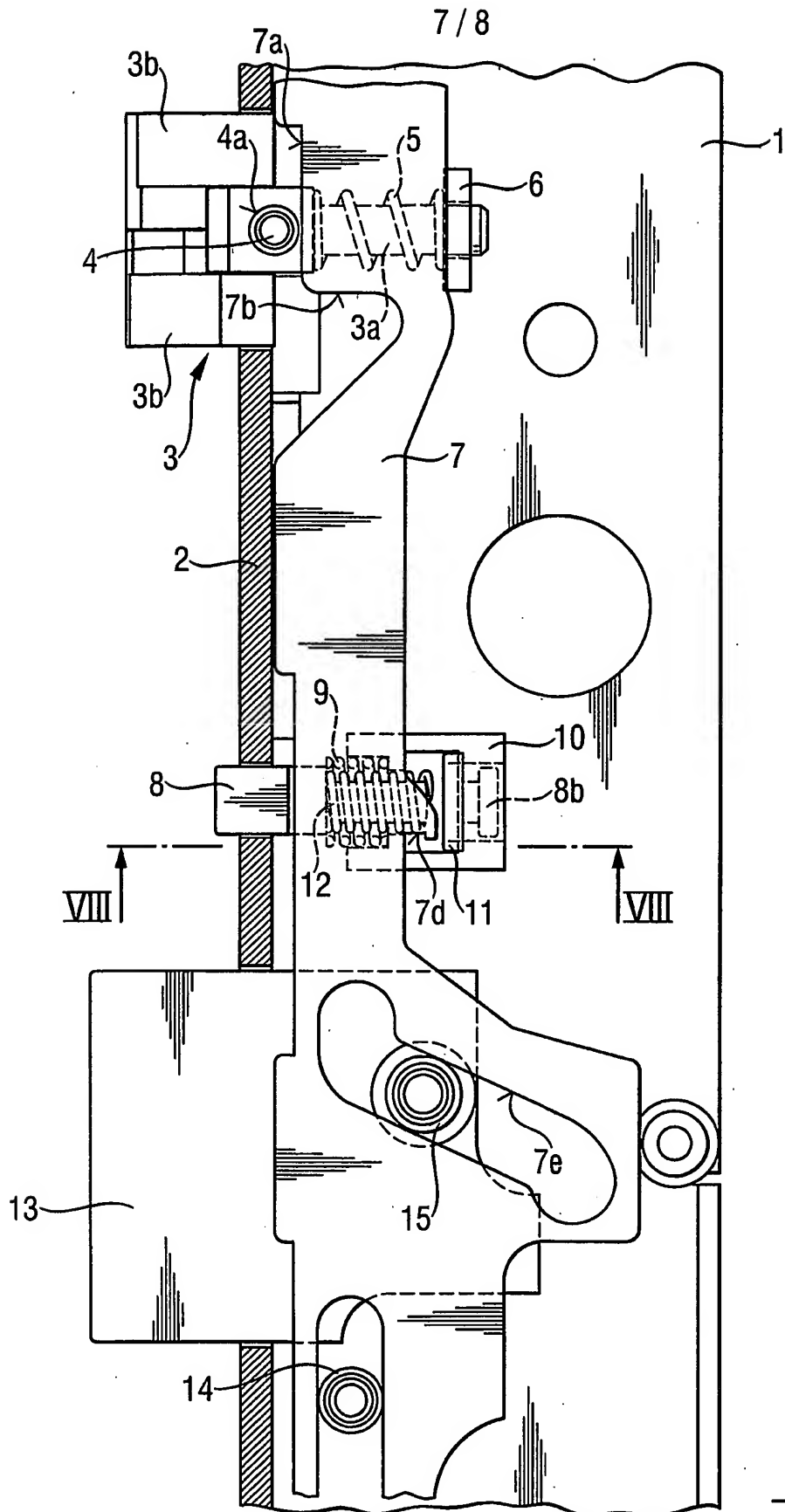
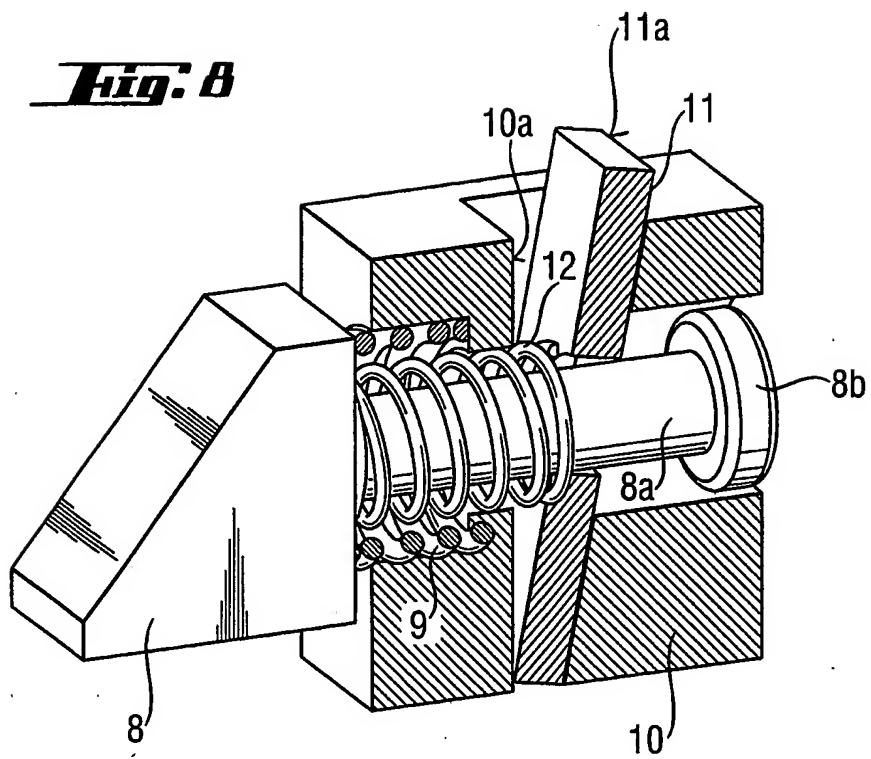


Fig. 7

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Fig. 8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/000255

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F05B 55/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F05B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 3938655 A1 (OY WÄRTSILÄ AB), 31 May 1990 (31.05.1990) --	1,10
Y	EP 1031686 A2 (KABA GEGE GMBH), 30 August 2000 (30.08.2000) --	1,10
A	DE 19858174 A1 (DORMA GMBH + CO KG), 29 June 2000 (29.06.2000) --	
A	US 5113676 A (PANOSSIAN), 19 May 1992 (19.05.1992) --	

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

23 August 2004

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 2004/000255

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FI 83802 B (OY ABLOY SECURITY LTD), 15 May 1991 (15.05.1991) ----- -----	

INTERNATIONAL SEARCH REPORT
Information on patent family members

03/07/2004

International application No.

PCT/FI 2004/000255

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				SE	466762 B,C	30/03/1992
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				US	5083448 A	28/01/1992

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